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Alternative method for treating acquired aplastic anemia

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Abstract

Acquired aplastic anemia (AA) is an autoimmune disorder which is characterized by pancytopenia and hypocellular bone marrow. Combined immunosuppressive therapy (CIT) including the use of antithymocyte globulin (ATG), cyclosporine-A (CS) and methylprednisolone (MP) is the main therapeutic method. However, responding patients will frequently have relapses, become dependent on CS, or develop a secondary clonal disease.

In 1987, researchers at our hematology clinic formulated the aim of scientific investigations in this direction. The purpose of their work was to create an alternative protocol of CIT AA that would be no less effective than existing protocols. Cyclophosphamide (CPh) was used as the main immunosupppressive drug. Moreover, splenectomies (SE), MP and cyclosporine (CS) were principally used in this scheme. Protocol was being constantly modified. The final protocol version is given below.

MP was administered intravenously at 500–250 mg on days 1–7, and after that orally at 36 mg per day with a subsequent gradual cancellation over 1.5 months. CS was administered at 5mg/kg per os daily from day 1 and continued for 12–28 weeks. SE was carried out on days 4–7 from the beginning of MP. CPh was administered intravenously at 200 mg per day. №5 started on days 4–10 after SE, then №5 every other day, then two times a week until transfusion independence was achieved. However, the general dose was not allowed to exceed 4 g.

This protocol for CIT was applied to 13 patients aged 13 to 43 years (7 males, 6 females). Nonsevere AA was diagnosed in 2 patients, severe AA in 8 and very severe AA in 3 cases. Remission was achieved in 11 patients, 2 patients died during therapy, 1 patient had a relapse, and 1 developed myelodysplasia. Of the 13 patients, 8 are alive and in complete remission.

Keywords: aplastic anemia, treatment, cyclophosphamide, splenectomy